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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/328,749	06/09/1999	JEFFREY E. GEBHARD	ADI-005	7235

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EXAMINER

STASHICK, ANTHONY D

ART UNIT	PAPER NUMBER
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3728

DATE MAILED: 07/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/328,749

Applicant(s)

GEBHARD, JEFFREY E.

Examiner

Anthony D Stashick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid (an additional one month extension has been charged to the account noted on the request for extension of time since there was not a Certificate of Mailing and the date by the attorney's signature, as well as the date received, was May 8, 2002. To be timely filed with the two month extension, the paper should have been sent in by May 6, 2002.), the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 8, 2002 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 9-10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coplans 3,550,597 in view of Dubner 3,903,621 and Kraeuter et al. 5,915,820. Coplans '597 discloses substantially all the limitations of the claims including the following: a torsion system 15; forefoot portion 17; rear foot portion 16; intermediate portion 18; intermediate portion coupling forefoot and rear foot portion together (see Figures); intermediate portion made of material to allow for rotation of forefoot portion relative to rear foot portion about the longitudinal line of the system (see Figures 4, 6, 12 and 13); forefoot, rear foot, and intermediate portions form a single plate (see Figure 1); the single

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plate is substantially rigid in a horizontal plane (see column 3, lines 40-42), the width of the intermediate portion is less than that of the rear and forefoot portions (see Figures 11, 2, 4, 12, 13, and 15). Coplans '597 does not teach or show that the forefoot portion of the torsion system spans the entire forefoot area of the sole or the forefoot portion having a generally smooth concave contour along the longitudinal axis. Dubner '621 shows that a supportive innersole device can span substantially the entire forefoot area from the midtarsal area to the toe area and from the lateral side to the medial side to give support to the largest area of the sole of the user's foot. Dubner '621 also teaches that the same supportive device can span substantially the entire rear foot area including the area from the midtarsal area to the heel and from the lateral side to the medial side (see Figures 1-3) for the same reason. Therefore, it would have been obvious, to one of ordinary skill in the art at the time the invention was made, to make the forefoot and heel areas of Coplans '592 span the entire forefoot and heel areas as shown in Dubner '621 to give support to the largest area of the user's foot and to spread out the impact of the foot with the ground over the largest area possible. Kraeuter et al. '820 shows, in Figures 7 and 8, that the forefoot area of a foot support device can be concave upward in the forefoot area to follow the natural curvature of the forefoot area of a user's foot and make the fit feel more comfortable doing so. Therefore, it would have been obvious to make the forefoot area of the references as modified and applied immediately above, concave, as shown in Kraeuter et al. '820, to allow it to follow along the natural contour of the user's foot while giving a feeling of comfort on the user's foot.

4. Claims 1, 5-6, 8-11, 15-17, 19-21, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderie 4,922,631 in view of Dubner 3,903,621 and Kraeuter et al. 5,915,820.

Anderie '631 discloses substantially all the limitations of the claims including the following: a torsion system (9 in figure 1, or 116, 118, 119 shown in Figure 8 or that shown in Figure 4); a forefoot portion (119 or that where 111 is located in Figure 4); rear foot portion (118 or that where 112 is located in Figure 4); intermediate portion (116 of Figure 8 or 110, 114, 115 of Figure 4); intermediate portion

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coupling together forefoot and rear foot portions (see Figures) and made of a material that allows rotation of the forefoot portion relative to the rear foot portion about the longitudinal line of the torsion system (see Abstract or column 4, lines 29-50); intermediate portion includes a rib (see Figure 6, ribs are 114, 115, and 116 while base is 113); rib tuned torsionability (see column 5, lines 62-66); at least one aperture 120 in rear foot portion; rear foot, forefoot and intermediate portions form a single plate (see Figures); the plate is substantially rigid in a horizontal plane (see column 4, lines 39-51); plate is between 1 and 15 mm thick (see column 4, lines 10-15); the width of the intermediate portion is less than that of the rear foot and forefoot portions (see Figures); plate comprises nylon (see column 4, line 7); plate comprises composite material (see Column 4, lines 55-59) including glass; front and rear foot portions comprise different material properties than intermediate portion (see column 4, lines 3-15 and 55-63); aperture formed in intermediate portion (that area between 115 and 166 or 116 and 114 in figure 6); outsole 2. Anderie '631 does not teach or show that the forefoot portion of the torsion system spans the entire forefoot area of the sole or that the rear foot portion spans the entire rear foot area of the sole or that the forefoot area has a generally smooth concave contour along the longitudinal axis. Dubner '621 shows that a supportive innersole device can span substantially the entire forefoot area from the midtarsal area to the toe area and from the lateral side to the medial side to give support to the largest area of the sole of the user's foot. Dubner '621 also teaches that the same supportive device can span substantially the entire rear foot area including the area from the midtarsal area to the heel and from the lateral side to the medial side (see Figures 1-3) for the same reason. Therefore, it would have been obvious, to one of ordinary skill in the art at the time the invention was made, to make the forefoot and heel areas of Anderie '631 span the entire forefoot and heel areas as shown in Dubner '621 to give support to the largest area of the user's foot and to spread out the impact of the foot with the ground over the largest area possible. Kraeuter et al. '820 shows, in Figures 7 and 8, that the forefoot area of a foot support device can be concave upward in the forefoot area to follow the natural curvature

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of the forefoot area of a user's foot and make the fit feel more comfortable doing so. Therefore, it would have been obvious to make the forefoot area of the references as modified and applied immediately above, concave, as shown in Kraeuter et al. '820, to allow it to follow along the natural contour of the user's foot while giving a feeling of comfort on the user's foot.

5. Claims 22-23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 21 in paragraph 4 above in view of Nagano et al. 5,446,977. The references as applied to claim 21 in paragraph 4 above disclose all the limitations of the claims except for the footwear being a cycle shoe and having a cleat attachment. Nagano et al. teaches that it is desirable to have a torsion system placed within a cycle shoe, with a cleat attachment (8, 9a, 9), to keep the foot located properly on the pedal of a bicycle to allow for the largest driving force possible to be transferred from the user's leg to the pedal. Therefore, it would have been obvious to place the torsion system of the references as applied to claim 21 in paragraph 4 above into a bicycle shoe, such as that shown in Nagano et al. '977, to aid in keeping the foot properly located on the pedal to get the most work out of the energy expelled by the rider and to help in correcting the twisting of the user's leg due to the pedaling of the bicycle. Nagano et al. '977 also shows the shoe containing an upper as seen in Figures 8-9.

6. Claims 2-4 and 11-14, and 18 are rejected under 35 U.S.C. 103(a) as being obvious over the references as applied to claims 1 and 9 in paragraphs 3 and 4 above. The references as applied to claims 1 and 9 in paragraphs 3 and 4 above disclose all the limitations of the claims except for the specific degree of rotation of the forefoot portion to the rear foot portion, the thickness of the intermediate portion or the intermediate portion being made of graphite. It appears that it would have been a mere matter of testing and optimization to find the degree of rotation of the forefoot portion with respect to the rear foot portion that would best aid the foot to rotate the desired amount to counter the rotation of the foot due to knee movement. It also appears that it would have been a mere matter of

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testing and optimization to find the thickness and material makeup (as the material make up of the intermediate also is a factor in determining the necessary thickness needed) of the intermediate portion that would allow the desired rotation and to customized the torsion system to different people's feet. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to find the proper angle of rotation of the forefoot portion to the rear foot portion and the thickness and material of the intermediate portion that would best compensate for the twisting motion performed by the knee on the foot.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above in view of Eisenbach et al. 4,815,222. The references as applied to claim 1 in paragraphs 3 and 4 above disclose all the limitations of the claim except for the intermediate portion defining at least one circumscribed aperture. Eisenbach et al. '222 teaches that the intermediate portion of a sole of a bicycle shoe can have a circumscribed aperture (24 in Figure 5A) located therein to allow for adjustably mounting a cleat into any one of a number of positions on the shoe (see col. 4, lines 20-23). Therefore, it would have been obvious, to one of ordinary skill in the art at the time the invention was made, to place such an aperture in the sole of the references as applied to claim 1 in paragraphs 3 and 4 above to allow for a traction cleat to be mounted on the shoe if desired.

Response to Arguments

8. Applicant's arguments filed May 8, 2002 have been fully considered but they are not persuasive. Applicant argues that Coplans is more of a lifting force than a torsional force that applies progressively across the extent of the foot during natural walking action. This argument is not clearly understood. It appears applicant is arguing more than that which is claimed, as the only requirement is that the intermediate portion allow rotation of the forefoot portion with respect to the rearfoot portion. Since the intermediate portion of Coplans allows for this movement, the limitations of the claims are

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met by the Coplans reference. Applicant further argues that the Dubner reference only extends to the toe area. This argument is not clearly understood. It appears that applicant is arguing more than that which is claimed as the claim requires only that the forefoot portion extend "to a toe area" which does not imply that the forefoot extends into and including the whole toe area. Therefore, since the forefoot portion of Dubner extends "to a toe area", it meets the limitations as claimed. Applicant also argues that Dubner is not directed to prescribing a torsional motion between the heel and anterior regions of the wearer's foot. This argument is also not clearly understood. Applicant only claims that the forefoot and heel regions are able to rotate relative to each other. It appears that any insole that extends the length of the user's foot would meet these requirements as the forefoot area and the heel area can rotate with respect to each other and the limitations of that rotation would be based upon the material used and the thickness of the insole. Since Dubner has the claimed structure and can perform the same function, i.e. allow the forefoot portion to rotate with respect to the heel portion, Dubner "reads on" the claimed invention. With respect to applicant's arguments directed to Kraeuter et al., the same arguments applied above would apply to Kraeuter et al. as well. Applicant's argument that Dubner is non-analogous art is not clearly understood. The forefoot and heel portion of Dubner can rotate with respect to each other and therefore meet the limitations of the claims making Dubner analogous as it includes all the claimed limitations. As Dubner was used to teach that a sole support can span the entire area of the forefoot, and the torsion motion was taught by Coplans, it therefore was proper to combine the references as both deal with supporting a user's foot. Applicant's argument that Coplans lacks the feature of creating or controlling the torsional motion between the forefoot area and the heel area is not clearly understood. The Abstract of Coplans clearly states that the invention of Coplans is a foot supporting and correcting device for augmenting the natural **torsion like** action of the foot in walking (see first sentence of Abstract). Therefore, it is believed that Coplans has the desired feature.

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Applicants other argument deal either directly or indirectly with the same arguments directed to the references individually and therefore, the same arguments above apply.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and are cited on form 892 enclosed herewith.

10. It appears that applicant is reading more into the claimed subject matter than that which is claimed. Independent claim 1 appears to only require that there be a forefoot portion, a rear foot portion, and an intermediate portion with the intermediate portion allowing the forefoot portion to rotate with respect to the rearfoot portion. As noted above, it would appear that any insole that extends the length of the user's foot would allow for this as the ability of the forefoot portion to rotate with respect to the rearfoot portion would depend upon the material used and the thickness of the material, thereby allowing "in a preselected manner (i.e. thickness and material selected) rotation of the forefoot with respect to the rearfoot portion.

Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, "should be directed to the group clerical personnel and not to the examiners. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information without contacting the examiners", M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, email CustomerService3700@uspto.gov.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony D Stashick whose telephone number is 703-308-3876. The examiner can normally be reached on Tuesday through Friday from 8:30 am until 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mickey Yu can be reached on 703-308-2672. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Other helpful telephone numbers are listed for applicant's benefit.

Allowed Files & Publication	(703) 305-8322
Assignment Branch	(703) 308-9287
Certificates of Correction	(703) 305-8309
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Fee Increase Questions	(703) 305-5125
Intellectual Property Questions	(703) 305-8217
Petitions/Special Programs	(703) 305-9282
Terminal Disclaimers	(703) 305-8408
Informal Fax for 3728	(703) 308-7769

If the information desired is not provided above, or has been changed, please do not call the examiner (this is the latest information provided to him) but the general information help line below.

Information Help line	1-800-786-9199
Internet PTO-Home Page	http://www.uspto.gov/



Anthony D Stashick
Primary Examiner
Art Unit 3728

ADS
July 11, 2002